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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,114	06/29/2001	William Anders Peterson	13369 (52AY1379)	6262

7590

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EXAMINER

PEREZ, GUILLERMO

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,114

Applicant(s)

PETERSON ET AL.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 2-7, 9-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith, Jr. (U. S. Pat. 3,743,867).

Referring to claim 2, Smith, Jr. discloses a rotating machine comprising:

a stator (1) having a plurality of field winding slots;

a plurality of field windings (32) disposed in each of the field winding slots, at least two of the field windings (32) are comprised of:

- an outer jacket (surrounding the conductors in figure 2); and
- a plurality of conductive wires (32) disposed within and enclosed by the outer jacket such that longitudinal passages (31) are defined between there;

circulation means (21) for circulating a coolant (16) into and from the rotating machine through the longitudinal passages (31); and

a housing (3), the housing (3) having a cavity for acceptance of the stator (1) therein, the housing (3) and stator (1) defining first and second plenums (where the orifices 15 and 17 connect) at first and second ends of the stator (1), the coolant (16)

entering the rotating machine into the first plenum (at 15) and exiting the rotating machine from the second plenum (at 17).

Referring to claim 3, Smith, Jr. discloses that the at least two field windings having the longitudinal passages (31) further having at least one entry hole in the outer jacket providing communication between the longitudinal passages (31) and the first plenum (at 15) and at least one exit hole in the outer jacket providing communication between the longitudinal passages (31) and the second plenum (at 17), wherein the coolant (16) enters the longitudinal passages (31) from the first plenum (at 15) through the at least one entry hole and exits into the second plenum (at 17) through the at least one exit hole (column 3, lines 41-45).

Referring to claim 4, Smith, Jr. discloses that the at least two field windings having the longitudinal passages (31) further having an exit hole in the outer jacket which provides communication between the longitudinal passages (31) and the second plenum (at 17), the coolant (16) leaving the longitudinal passages (31) through the exit hole into the second plenum (at 17) for re-circulation into the first plenum (at 15), the first and second plenums (at 15 and 17) being connected with an external conduit (19).

Referring to claim 5, Smith, Jr. discloses that the circulation means comprises a pump (21) disposed in the external conduit (19) between the first and second plenums (at 15 and 17).

Referring to claim 6, Smith, Jr. discloses a heat exchanger (22) disposed in the external conduit (19) between the first and second ends for removing heat from the coolant (16) re-circulated therein.

Referring to claim 7, Smith, Jr. discloses that each of the plurality of field windings has the outer jacket and longitudinal passages (31).

Referring to claim 9, Smith, Jr. discloses that the plurality of conductive wires (32) disposed within the jacket is circular in cross-section.

Referring to claim 10, Smith, Jr. discloses a rotating machine comprising:
a stator (1) having a plurality of field winding slots;
a plurality of field windings disposed in each of the field winding slots, at least two of the field windings are comprised of:

- an outer jacket; and
- a plurality of conductive wires (32) disposed within and enclosed by the outer jacket such that longitudinal passages (31) are defined between there; and

circulation means (21) for circulating a coolant (16) into and from the rotating machine through the longitudinal passages (31), wherein

the conductive wires (32) are wound within the outer jacket to form helical shaped longitudinal passages (column 3, lines 25-30).

Referring to claim 11, Smith, Jr. discloses that the outer jacket comprises at least one film disposed over the conductive wires (32).

Referring to claim 13, Smith, Jr. discloses a rotating machine comprising:
a stator (1) having a plurality of field winding slots;
a plurality of field windings disposed in each of the field winding slots, the plurality of field windings comprising:

- an outer jacket only partially contiguous with walls of the field winding slots (Figure 2); and
 - a plurality of conductive wires (32) disposed within the outer jacket such that longitudinal passages (31) are defined between there; and
- circulation means (21) for circulating a coolant (16) into and from the rotating machine through the longitudinal passages (31).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Jr.

Smith, Jr. substantially teaches the claimed invention except that it does not show that the outer jacket is a flexible elastomer.

Smith, Jr. discloses that the outer jacket is a plastic (column 1, lines 10-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a flexible elastomer since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over W. D. Horsley (U. S. Pat. 3,082,337) in view of Smith, Jr.

W. D. Horsley discloses a rotating machine comprising:
a stator (4) having a plurality of field winding slots (figures 5-6);
a plurality of field windings (1) disposed in each of the field winding slots, at least two of the field windings (1) are comprised of:

- an outer jacket (9); and
- a plurality of conductive wires (6) disposed within and enclosed by the outer jacket (9) such that longitudinal passages are defined between there; and

impregnant (18) disposed in the slots to seal the spaces between adjacent outer jackets (9) and between the outer jackets (9) and walls (17) of the slots. However, W. D. Horsley does not disclose the circulation means ("a pump disposed in an external conduit between the first and second plenums") for circulating a coolant into and from the rotating machine through the longitudinal passages.

Smith, Jr. discloses circulation means ("a pump disposed in an external conduit between the first and second plenums") (21) for circulating a coolant into and from the rotating machine through the longitudinal passages. Smith's invention has the purpose of cooling and circulating the cooling fluid within the machine.

It would have been obvious at the time the invention was made to modify the machine of W. D. Horsley and provide it with the circulation means disclosed by Smith, Jr. for the purpose of cooling and circulating the cooling fluid within the machine.

Response to Arguments

Applicant's arguments with respect to claims 2-13 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
March 27, 2003


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